NOTES ICHTYOLOGIQUES

OCCURRENCE OF *CHILARA TAYLORI* (OPHIDIIDAE), AN EASTERN NORTH PACIFIC CUSK-EEL FROM ECUADORIAN WATERS.

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RÉSUMÉ. - Observation de *Chilara taylori* (Ophidiidae), une donzelle du Pacifique Nord-Est, dans les eaux équatoriennes.

Pour la première fois un spécimen de *Chilara taylori* est observé très au Sud de son aire de répartition. Sa présence en Équateur ainsi que sa taille au-dessus de la normale pourraient s'expliquer par un allongement de la phase planctonique en relation avec une importante dérive vers le Sud.

Key-words. - Ophidiidae, *Chilara taylori*, Eastern Pacific, Ecuador, Dispersal, First record.

On 4 August 1994, an unusual cusk-eel (family Ophidiidae) was observed in the fish market of Puerto López in Manabí, Ecuador. The specimen, which measures 396 mm SL and 404 mm TL, was acquired by the junior author (PB) at the market (Fig. 1). The cusk-eel was taken by the artisanal fishery which fishes off central Ecuador, in the vicinity of 01°33'S, 80°49'W, between 50 to 120 m (primarily 70-80 m), on muddy bottom by long line. The congrio or cusk-eel catch from this area normally consists of *Brotula clarkae*, *Brotula ordwayi*, and *Lepophidium negropinna*, all relatively common Ecuadorian and Peruvian market fishes (Béarez, 1996).

The specimen in question is an exceptionally large spotted cusk-eel, *Chilara taylori* (Girard, 1858). The species is the most temperate of the eastern Pacific ophidiine cusk-eels. The geographical range for the species is from Cape Elizabeth, Washington (47°26'N) to Bahiá Santa Maria, Baja California, Mexico (24°40'N) (Lea, 1980); the normal distribution is from northern California to off central Baja California, Mexico. This zoogeographic pattern represents a broad marine temperate distribution corresponding to the Oregon (in part) and San Diego provinces of the eastern North Pacific (Briggs, 1974).

The identity of the cusk-eel as *Chilara taylori* was based on meristic and morphometric analysis. Meristic values for the Ecuadorian specimen are: dorsal fin-rays 207, anal fin-rays 161, vertebrae 19 + 71 = 90 (the preceding counts taken from radiograph), gill rakers 3 rudiments + 8 developed = 11. These values all fall within the known limits for the species (Lea, 1980): D 187-229, A 150-181, vert. 18-19 + 68-72 = 86-91, gill rakers 3 (rarely 2 or 4) rudiments + 7-9 = 9-12. In addition, the cephalic lateral-line pores are surrounded by white halos, a characteristic notable in *C. taylori*.

The occurrence of *Chilara taylori* so far outside its known range can best be explained as extreme waif or expatriate dispersal. The record is approximately 4,300 km (and 25 latitudinal degrees) beyond the southern limit of its range. We hypothesize that the specimen attained its Ecuadorian locale during its early life history. *Chilara taylori* has a nektonic prejuvenile stage (*novaculum* stage) and undoubtedly has the capacity to remain as a midwater organism for extended periods of time; juvenile and adult stages are benthic. Ambrose *et al.* (1983) and Moser (1996) describe and discuss the larval and prejuvenile stages of *C. taylori*. Lea (1980) recorded prejuveniles to 85.5 mm SL. Two prejuveniles larger than this (106.0 and 116.5 mm), not previously reported, were identified from a "marlin stomach", also off Ecuador (00°02'S, 83°03'W, collected 16 Feb. 1956; UCLA W 56-11, ident. by RNL). Hence, it is conceivable that prejuvenile *Chilara taylori* can be transported beyond the limits of the temperate eastern North Pacific (*i.e.*, San Diego Province) into the Panamic Province as far south as Ecuadorian waters before settling out. This dispersal would require transport from the California Current System into the North Equatorial Current, then across the North Equatorial Counter Current, and finally into the South Equatorial Current before settlement could take place off Ecuador (Pickard, 1963).

The exceptional size of this specimen, 30 mm larger than the largest known *C. taylori* (from off California), may be the result of an inordinate amount of time spent in the prejuvenile stage. Somatic growth may continue once settlement takes place with perhaps no or little investment being directed toward reproductive develop-

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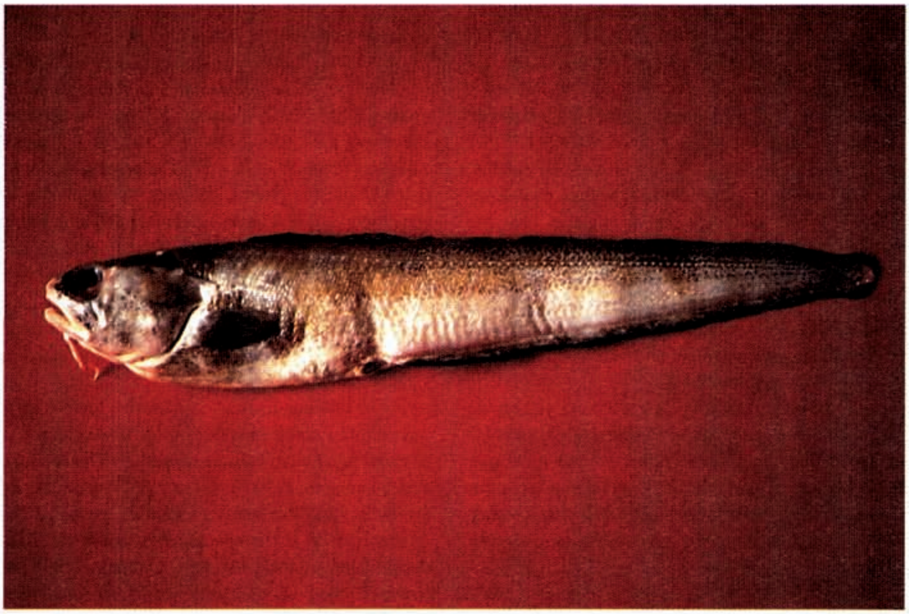

Fig. 1. - The Ecuadorian specimen of *Chilara taylori*, MNHN 1996-1471, 396 mm SL (photo by P. Béarez).

ment. The concept of an isolated, viable, population of *C. taylori* occurring off Ecuador does not seem plausible.

The Ecuadorian *C. taylori* is deposited in the Muséum national d'histoire naturelle; MNHN 1996-1471.

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